

Attorney Docket No. BU9-99-067
(21806-00070-US1)

Application No. 10/672,012

IN THE CLAIMS

This listing of claims will replace all previous versions and listings of claims in the application:

LISTING OF CLAIMS

1-19 (Cancelled).

20. (Previously presented) A method for making a semiconductor chip comprising:
forming a diffusion region in a semiconductor substrate;
forming an insulated trench structure in said substrate which surrounds said diffusion region; and
forming electrical connections on said trench structure and said substrate which receive a control voltage whereby an electric field is produced to control a current flowing in said diffusion region.

21. (Previously presented) The method for making a semiconductor chip according to claim 20, further comprising source and drain regions formed in said diffusion on each side of a gate.

22. (Original) The method of making a semiconductor chip according to claim 20, wherein said diffusion region forms a resistor which has a resistance controlled in response to said control voltage.

23. (Previously presented) The method of making a semiconductor chip according to claim 20, wherein said diffusion region is formed in a well of polysilicon deposited in said trench structure.

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24. (Original) A method for making a semiconductor chip comprising:
forming first and second diffusion regions in a semiconductor substrate;
forming a trench structure around said first and second diffusion regions; and
forming a contact on said trench structure and said substrate for controlling
current through said diffusion regions.

25. (Original) The method for making a semiconductor chip according to claim
24, further comprising:
forming first and second gates over said first and second diffusion regions.

26. (Previously presented) A method for making a semiconductor chip
comprising:
forming multiple diffusion regions that are surrounded by multiple trench
structures on a substrate; and
forming multiple contacts on each of said trench structures and said substrate
for controlling current through said diffusion regions.

27. (Original) The method for making a semiconductor chip according to claim
26, further comprising:
forming a gate electrode over each of said diffusion regions; and
forming drain and source connections on opposite sides of said gate
electrodes.